

DART SERVICE INSTRUCTION

TO AMEND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D212-664 REV. 9

REF. CANADIAN STC: SH01-9

REF. FAA STC: SR01298NY

REF. EASA STC: EASA.IM.R.S.01304

REF. DGAC-MEXICO STC: IA-316/2015

1.0 PURPOSE:

The purpose of this Dart Service Instruction is to provide customers with instructions (on request) to replace the D4909-1 Support with a D5380-1/-3 Support on the D412-664-403 Heavy Duty High Aft Crosstubes.

2.0 INSTALLATION PROCEDURE:

Caution: Ensure crosstubes are not damaged during removal of supports.

- 2.1 Remove crosstube in accordance with ICA-D212-664 chapter 32.1.
- 2.2 Accurately mark location of existing D4909-1 Support and then remove the attaching hardware.
- 2.3 Break the seal around the support to remove it. Remove 3M DP460 adhesive between the crosstube and the support. Discard supports and all associated hardware.
- 2.4 Remove residual adhesive on the crosstube with Scotchbrite. Saturate a clean cotton cloth with Methyl Ethyl Ketone (MEK), 4105S Wash'n'Wipe degreaser, or equivalent and wipe the crosstube surface clean.
- 2.5 If the paint finish has been Compromised underneath the support, the prime/paint finish should be removed down to the bare metal, degreased with Axalta 13205S aluminum cleaner, and then treated with Axalta Metalok 230S Adhesion Promoter or DOD-P-15328D Wash Primer per DSI 9735.
- 2.6 Touch up paint finish if required with MIL-P-85582 or MIL-P-23377 primer, and 2-3 coats of MIL-C-85285 polyurethane paint to match original finish and allow to fully cure.
- 2.7 Locate area on the crosstube for installation of D5380-1/-3 Heavy Duty Support Assembly with reference to Figure 2.
- 2.8 Abrade the mating surfaces of the crosstube and D5380-1/-3 support halves with 180-grit sandpaper. Saturate a clean cloth with MEK, 4105S Wash'n'Wipe Degreaser or equivalent and wipe clean until there is no residue.
- 2.9 Apply a 0.04" to 0.07" thick layer of 3M DP460 Adhesive onto the concave surface of the D5380-1 Upper Support Half and the D5380-3 Lower Support Half.
- 2.10 Install D5380-1 Upper Support Half onto the crosstube as shown in Figure 1 and install Qty (2) NAS6704-21 Bolts into opposing corners of the D5380-1 Support. Use the rocker beam as a guide to ensure proper orientation of the D5380-1/-3 Center Support in relation to the D4910-1 Chafing Shields.
- 2.11 Align the bolts with the holes on D5380-3 Lower Support Half and install onto the crosstube, reference Figure 2.
- 2.12 Install the remaining Qty (6) NAS6704-21 Bolts and Qty (8) NAS1805-4P Nuts, then evenly torque the nuts in a criss-cross pattern to 60-70 in-lbs. Ensure a minimum of 1.5 threads are in safety.
- 2.13 Wipe off excess adhesive using a clean cloth saturated with MEK, 4105S Wash'n'Wipe Degreaser or equivalent.
- 2.14 Fillet seal the edges of the D5380-1/-3 Support halves with Proseal PR1422 B1/2 or PR890 B1/2 prior to installing crosstube on aircraft. Allow DP460 adhesive and proseal to cure for 24 hours.
- 2.15 Reinstall crosstube in accordance with ICA-D212-664 Chapter 32.2.
- 2.16 Update aircraft log book to indicate installation of DSI 9744-011 Kit and adjust the weight and balance record for the aircraft with the weight and balance data provided in Section 4.0 of this Dart Service Instruction.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 16.04.07
CERT. NO.: SH01-9
ISSUE NO.: 3

APPROVED

A	NEW ISSUE	ML	16.04.07
REV.	DESCRIPTION	BY	DATE
DESIGN	ML	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	AJS	DRAWING NO.	REV. A
MFG. APPR.	DD	DSI 9744	SHEET 1 OF 3
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	HEAVY DUTY SUPPORT KIT	NTS
DATE	16.04.07	COPYRIGHT © 2016 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

3.0 PARTS LIST

QTY -011	PART NUMBER	DESCRIPTION
X	DSI 9744-011	HEAVY DUTY SUPPORT KIT
1	D5380-1	UPPER SUPPORT HALF
1	D5380-3	LOWER SUPPORT HALF
1 TUBE	3M DP460	ADHESIVE TUBE
8	NAS1805-4P	NUT
8	NAS6704-21	BOLT

4.0 WEIGHT AND BALANCE

The following table summarizes the net weight increase associated with the installation of the DSI 9744-011 Kit.

PART NUMBER	WEIGHT	LATERAL		LONGITUDINAL	
		STA	MOMENT	STA	MOMENT
DSI 9744-011 HEAVY DUTY SUPPORT KIT	1.1 lb (0.50 kg)	N/A	N/A	163.0 in (4.14 m)	179.3 in lb (2.07 m kg)


CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 16.04.07
CERT. NO.: SH01-9
ISSUE NO.: 3

APPROVED

DESIGN	ML	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	AJS	DRAWING NO. DSI 9744	REV. A
MFG. APPR.	DD		SHEET 2 OF 3
APPROVED	WM	TITLE HEAVY DUTY SUPPORT KIT	SCALE
DE APPR.	DS 		NTS
DATE	16.04.07	COPYRIGHT © 2016 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

D5380-1
UPPER SUPPORT HALF

NAS6704-21 BOLT

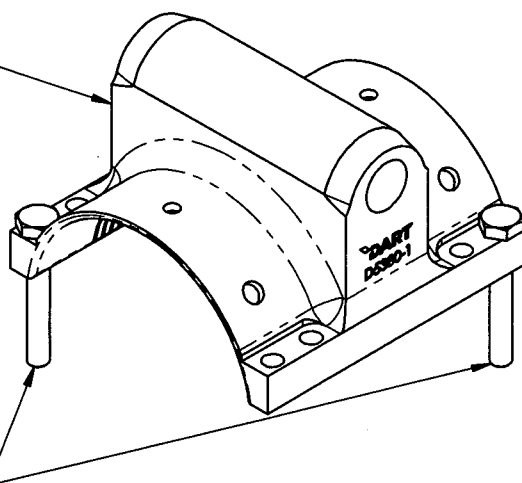


Figure 1 - Support Installation
Crosstube not shown for clarity

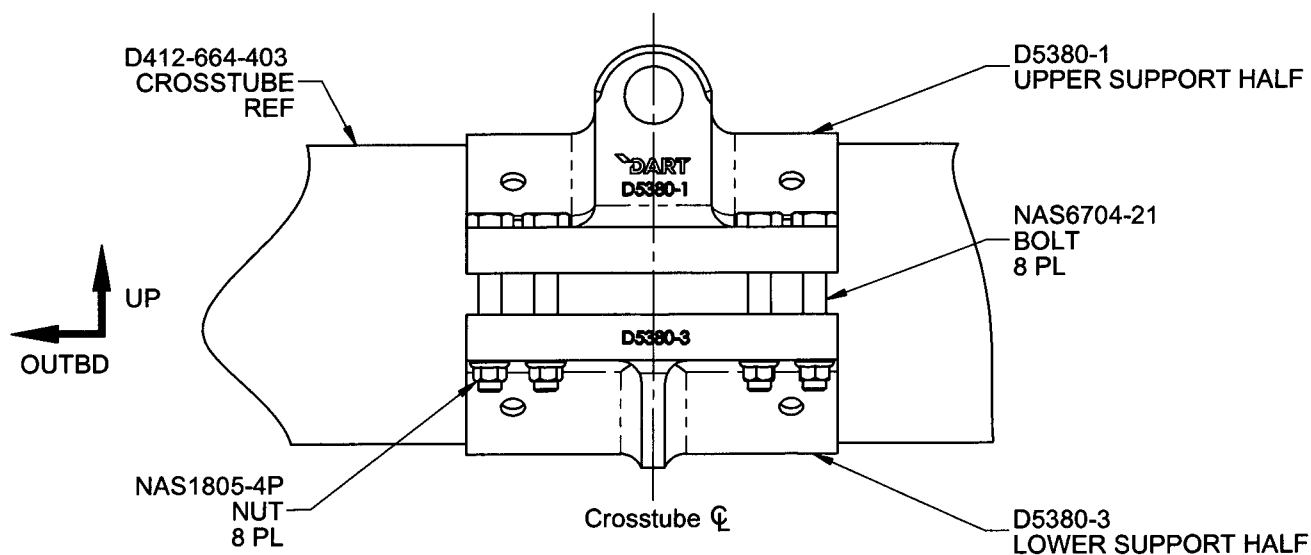


Figure 2 - Support Installation

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 16.04.07
CERT. NO.: SH01-9
ISSUE NO.: 3

APPROVED

DESIGN	ML	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	AJS	DRAWING NO. DSI 9744	REV. A
MFG. APPR.	DD	SHEET 3 OF 3	
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	HEAVY DUTY SUPPORT KIT	NTS
DATE	16.04.07	COPYRIGHT © 2016 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	